

Northwest Region Cleanup

Portland Harbor Source Control Summary Report Guide for the TCT

June 10, 2015



Portland Harbor Upland Source Control Summary Report



Prepared by:
Oregon Department of Environmental Quality
Northwest Region Office



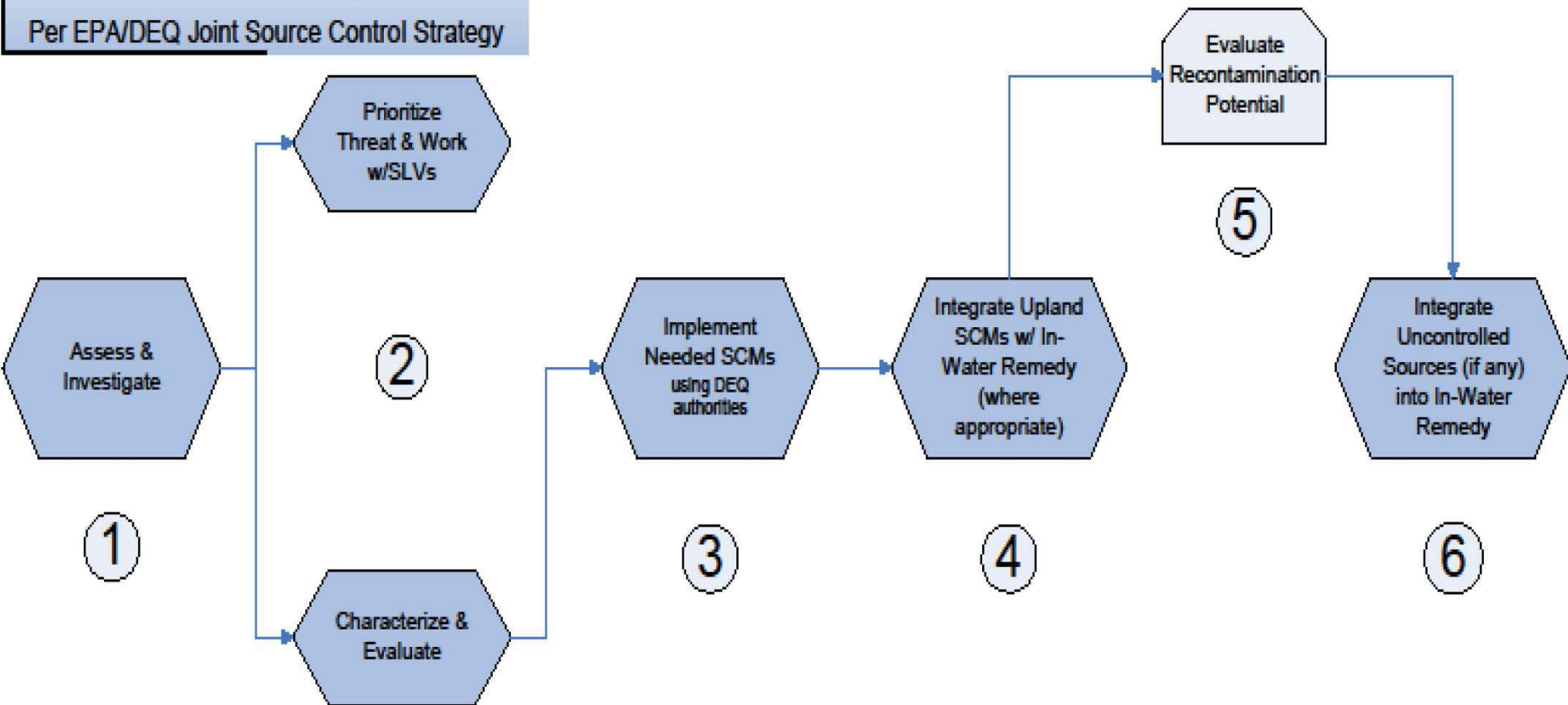
State of Oregon
Department of
Environmental
Quality

November 21, 2014

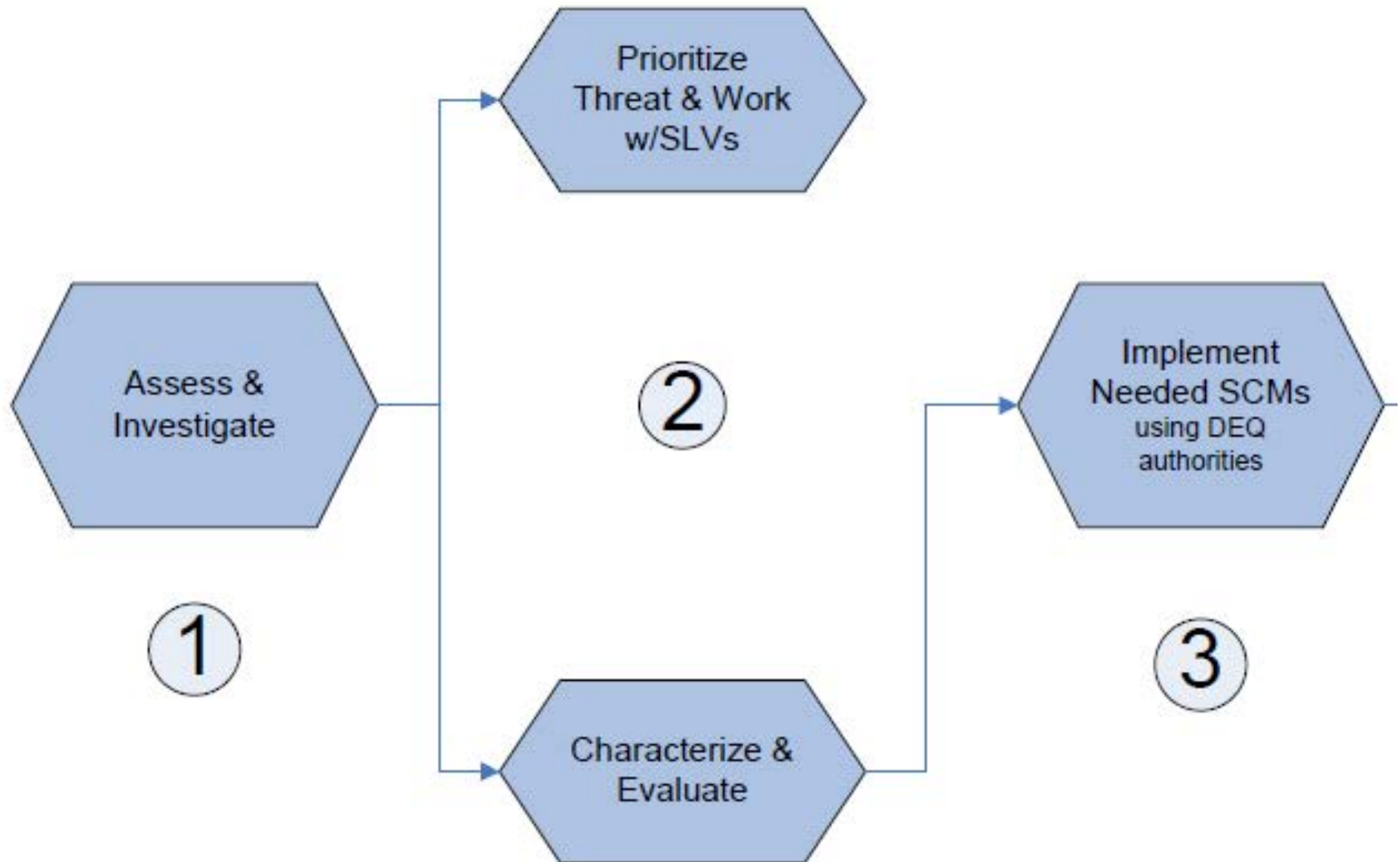
- Background & Joint Source Control Strategy objectives
- 168 sites – in 9 georegions
- All pathways, with focus on
 - Groundwater
 - Soil/Bank erosion
 - Stormwater
- Sediment recontamination prevention
 - Direct discharges
 - Linear transportation
 - Groundwater plumes
 - Soil/bank erosion areas
 - Upstream inputs
 - WQ & pollution prevention programs
 - Monitoring & adaptive management

Source Control Process

Per EPA/DEQ Joint Source Control Strategy



Site Categorization



– sources yet uncontrolled - plan & schedule for control

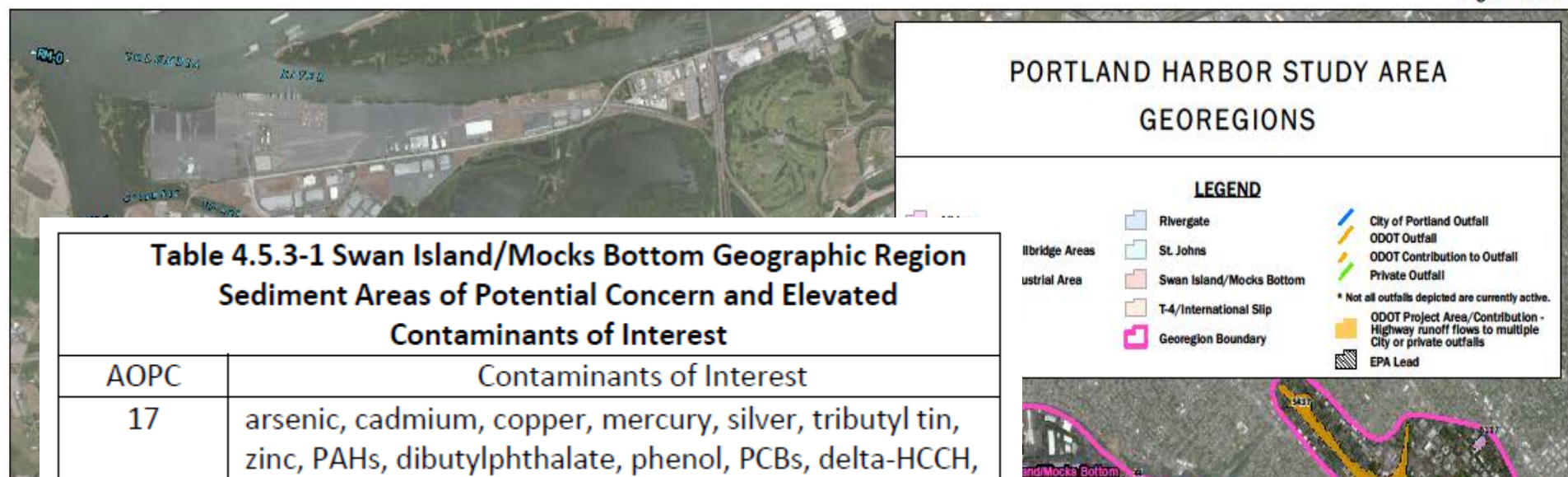


Table 4.5.6-2 Doane Lake/Willbridge Geographic Region NPDES Permits

Individual Permits		1200Z Industrial Stormwater General Permit Registrants, No Exposure Certification or Best Management Practices	
	Permit #		Permit #
NW Natural	103061	Air Liquide American Specialty Gases	1200Z
Star Link Logistics, Inc (Rhone Poulenc)	101180	Metro Waste transfer Station	1200Z
Koppers	101642	GS Roofing Products Company (CertainTeed)	1200Z
Siltronic	101128	Siltronic	1200Z
Arkema	100752	Brenntag Pacific, Inc	1200Z
Arkema	103075	Arc Terminals	1200Z
		McCall Oil Company Marine Terminal	1200Z
		Chevron USA – Willbridge Distribution	1200Z
		Phillips 66 Company (Willbridge Terminal)	1200Z
		Kinder Morgan Liquid Terminals, LLC (Willbridge Terminal)	1200Z
		US Moorings	1200Z
		Chevron Transportation	NEC
		Goby Walnut Products, Inc.	NEC

17\$
Swan

-  **Georgion Boundary Line**
-  **Site Boundary**
-  **EPA-Led**
-  **Early Action Areas**
-  **Williamette River mile (RM)**
-  **Railroads**
-  **Areas of Potential Concern**
-  **Draft Sediment Decision Units (EPA 2014)**

-  Groundwater Containment
-  Stormwater Pipe Re-Lined
-  Groundwater Treatment or Removal
-  Soil or Sediment Removal
-  Stormwater Treatment System
-  Cap
-  Stormwater Permit / BMPs

-  **Uncontrolled**
-  **Control Measure in Place - Effectiveness Pending or Status Undetermined**
-  **Controlled or Excluded**

- DEQ Bank Actions
- Expected DEQ Bank Actions
- Current & Future EPA Bank Actions

-  City of Portland Outfall
-  ODOT Outfall
-  ODOT Contribution to Outfall
-  Port of Portland Outfall
-  Private Outfall

* Not all outfalls depicted are currently active.

**ODOT Project Area/Contribution -
Highway runoff flows to multiple
City or private outfalls**

Environmental Cleanup Sites from OR DEQ Environmental Cleanup Site Inventory (ECSI) database.
Taxlots from Metro RLIS. Outfalls from City of Portland BES.
Date: 11/19/2014



State of Oregon
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PORTLAND HARBOR STUDY AREA GEOREGIONS

St. Johns Georegion Table

Table 4.5.5-2 - St. Johns Geographic Region Sites

SITE	ECSI#	PATHWAY(S)	PRIORITY	SOURCE CONTROL MEASURES STATUS/DATES	DECISION DOCUMENT	RECONTAMINATION POTENTIAL
MarCom North	4797	Overland flow Bank erosion Groundwater Stormwater	Low Low Low Low	Soil and sandblast grit removal 2007 Excluded Excluded Excluded	SCD 2008	Low
MarCom South	2350	Overland flow Bank erosion Groundwater Stormwater	Low Low Low Low	Soil removal 2008 Excluded 2011 Excluded 2011 Excluded 2011	SCD 2008	Low
City of Portland BES Lab	2452	Overland flow Bank erosion Groundwater Stormwater	Low Low Low Low	Excluded Excluded Excluded Excluded	SCD 2010	Low
Crawford St Corp	2363	Overland flow Bank erosion Groundwater Stormwater	Low Low Low Low	Characterization ongoing - 2014 Soil removal 2001/In-water remedy integration	SCD anticipated 2015	Low
McCormick & Baxter	74	Overland flow Bank erosion Groundwater Stormwater	High High High High	Groundwater containment remedy constructed 2003 Upland soil removal and soil/bank cap constructed 2005	ROD 1996 CCR* 2005	Low
Willamette Cove	2066	Overland flow Bank erosion	Low Med	Soil removal 1999, 2001 & 2008 Sand removal 2006/in-water remedy	SCD anticipated	Medium until in- water remedy

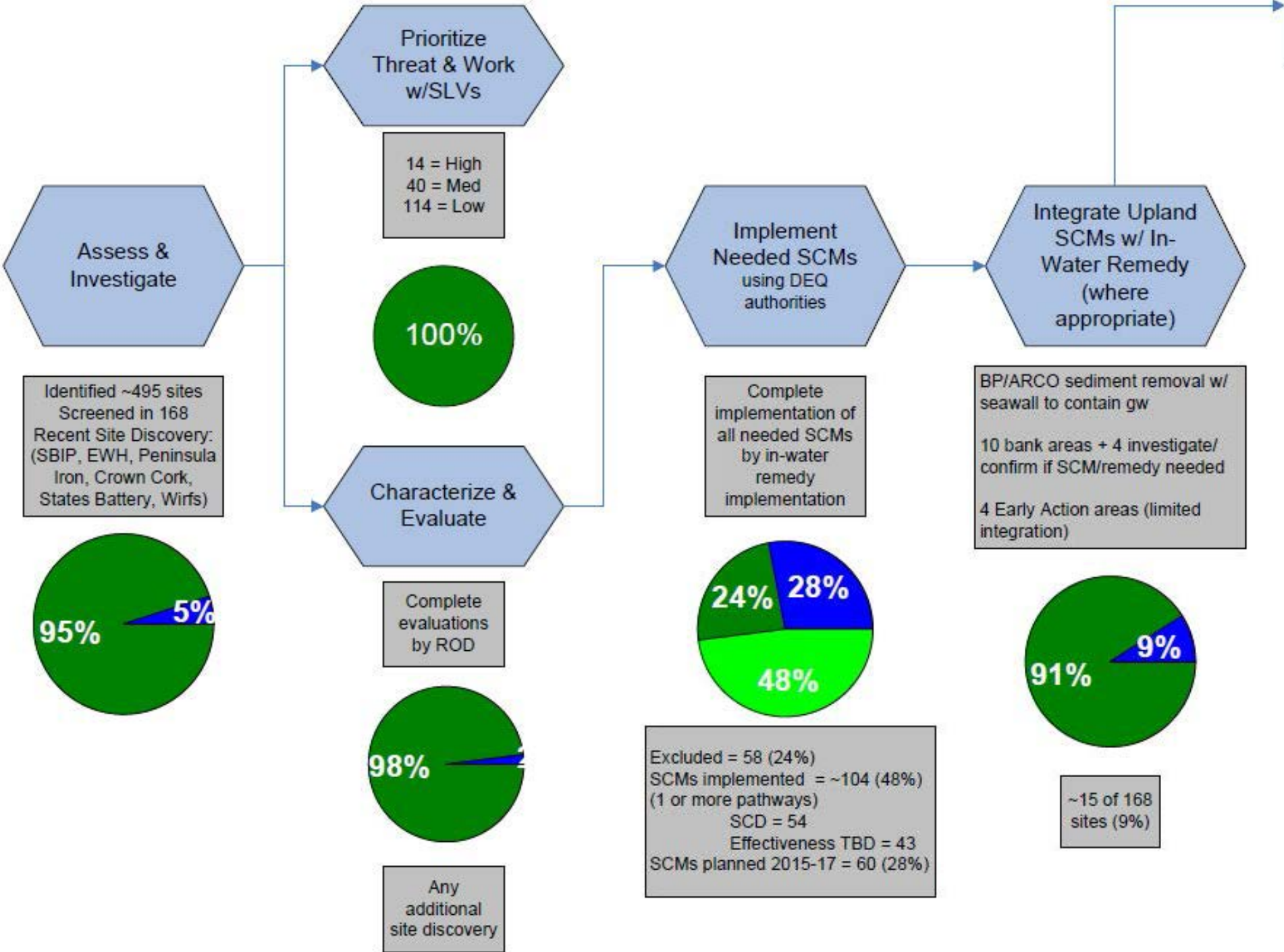


Site Summaries

For each site with any med or high priority pathways:

- Info on site history
- Evaluation of all pathways
- SCMs implemented, if needed & effectiveness status.
- Site-level recontamination potential

Full site info available by searching DEQs ECSI database or public info request





Georegion-1e Potent

Weighted lines of e

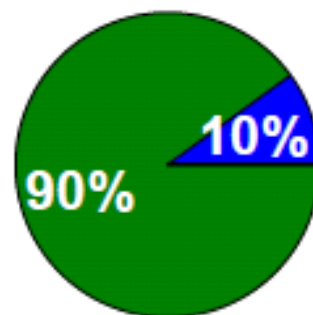
- CoCs found off-site
- CoCs on site & be
- Sufficiency of sou
- Geography/topog
- Development den
- Regulatory progr
- Adaptive manage

Evaluate
Recontamination
Potential

Qualitative SC
Summary Rpt

Identifying ~5
sites/OFs for
stormwater loading
evaluation

Identifying
groundwater
plumes/flux
evaluation
coordination



TBD <10%

Contamination

Contamination
Potential

Integrate
Uncontrolled
Sources (if any)
into In-Water
Remedy

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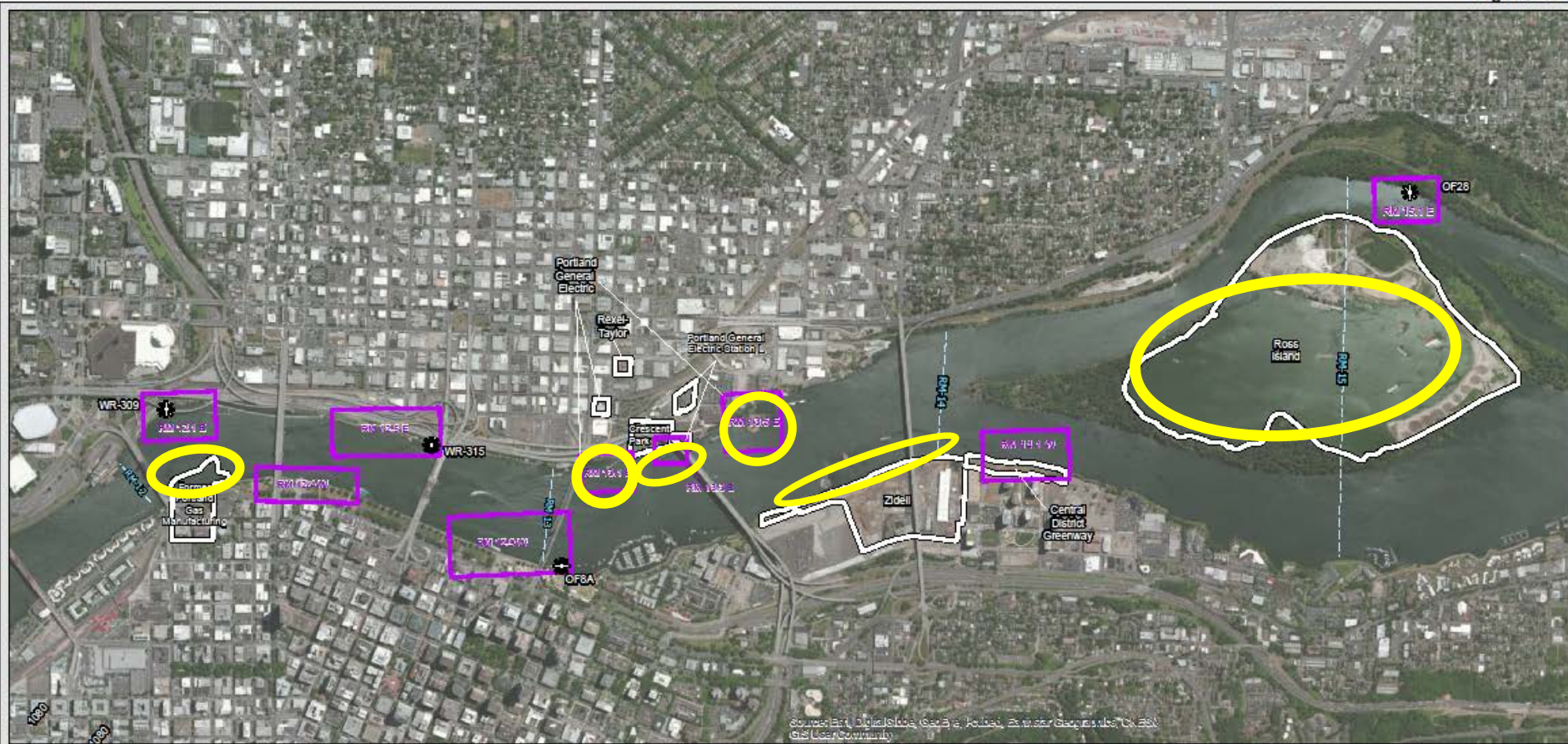


Comparison of Superfund Sediment Sites

Portland Harbor	Lower Duwamish Waterway	Gowanus Canal
~10 RMs, 14,000 ac (6,500 ac open space)	~5 RMs, 20,400 ac	~1.8 RMs
PCBs 31,000 ug/kg max 190 ug/kg sitewide avg (<i>HHRA</i>)	PCBs 890,000 ug/kg max 2,000 ug/kg mean (<i>RI/FS, PP, ROD</i>)	PAHs 48,000,000 ug/kg max PCBs 50,700 ug/kg max 3,470 ug/kg mean (<i>RI/FS, PP, ROD</i>)
168 upland sites evaluated/cleaned up	196 confirmed/suspected contaminated sites (27 state & 8 fed sites being evaluated/cleaned up)	3 former MGP sites, Navy facilities, former municipal incinerator
~400 OFs (4 MS4s, 74 indust permits, 84 NECs, 170 SC evals) 8 CSOs controlled in 2011 reduction of 94%	~223 OFs (100 indust permits) 4 MS4s 14 CSOs at various stages of control	~250 OFs (unpermitted) 10 CSOs aiming for 34% reduction by 2022
Proposed Plan anticipated Spring 2016	Proposed Plan Feb 2013 – 1 pg table and short SC summary	Proposed Plan Dec 2012 – short SC summary paragraph + CSO s
ROD anticipated 2017	ROD Nov 2014 - EPA/WA MOU commits to a pollutant loading assessment in Green watershed (450 sq mi)	ROD Sep 2013 - requires coord control of 3 MGP sites, CSOs & other upland contamination

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Figure 4.7



UPSTREAM SEDIMENT AND UPLAND SITES



Downtown Reach Sediment Investigation Focus Areas



Site Boundary



Outfall Location



Summary Report Conclusions

- Dependant on completion of source control at all sites
- Dependant on demonstrations of effectiveness
- May need support through targeted loading evaluations & additional data collection
 - Focus sites
 - Downtown Reach
- DEQ/EPA site progress tracking & plan for monitoring & adaptive management



Tracking

Tables in report

- Uncontrolled (4.8.1-1)
- Uncontrolled w/plan & schedule (4.8.1-2)
- Site controls pending effectiveness demo (4.9)
- Riverbanks to be integrated w/ remedy (4.8.2)
- Potential upstream data gaps (4.8.6)

Recontamination Focus

- Stormwater sites needing loading evaluations
- Groundwater sites needing loading evaluations

Monitoring and Adaptive Management

- EPA & DEQ jointly developing a plan for demonstrating source control & remedy effectiveness and prevention of recontamination
- Loading evaluation groundtruthing, additional baseline sampling and analysis, cap monitoring, etc.

Source Control Process

Per EPA/DEQ Joint Source Control Strategy

